



# SEQUENCE LISTING

<110> Barton, Barry  
McNaughton, Heather Jane  
Schofield, Christopher Joseph  
Thirkettle, Jan Edward

<120> Process for Preparing Clavam Derivatives  
by Using Polypeptides Having Beta-Lactam Synthetase Activity

<130> P32085

<140> PCT/GB99/02301

<141> 1999-07-15

<150> GB 9815666.4

<151> 1998-07-17

<160> 6

<170> FastSEQ for Windows Version 3.0

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<212> DNA

<213> Streptomyces clavuligerus

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caggggggagc gctcgcctgc ggcgaccctg gtgcacgccc cctcggctgc gcccgaccgc 180  
gcggtggcgc gctccctcac cggcgcgccc accaccgagg tgctcgccgg tgagatctac 240  
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ctggtcctgc ggetgctgga acgctatgac ctgcatgcct tccggctggg gaacggggcg 360  
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ggcgacaccc cgttggtggt gctctccggc ggaatcgact cctccggggg cgccggcctgt 780

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<212> PRT

<213> Streptomyces clavuligerus

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 20 25 30  
 His Thr Asp Ile Asp Thr Pro Gln Gly Glu Arg Ser Leu Ala Ala Thr  
 35 40 45  
 Leu Val His Ala Pro Ser Val Ala Pro Asp Arg Ala Val Ala Arg Ser  
 50 55 60  
 Leu Thr Gly Ala Pro Thr Thr Ala Val Leu Ala Gly Glu Ile Tyr Asn  
 65 70 75 80  
 Arg Asp Glu Leu Leu Ser Val Leu Pro Ala Gly Pro Ala Pro Glu Gly  
 85 90 95  
 Asp Ala Glu Leu Val Leu Arg Leu Leu Glu Arg Tyr Asp Leu His Ala  
 100 105 110  
 Phe Arg Leu Val Asn Gly Arg Phe Ala Thr Val Val Arg Thr Gly Asp  
 115 120 125  
 Arg Val Leu Leu Ala Thr Asp His Ala Gly Ser Val Pro Leu Tyr Thr  
 130 135 140  
 Cys Val Ala Pro Gly Glu Val Arg Ala Ser Thr Glu Ala Lys Ala Leu  
 145 150 155 160  
 Ala Ala His Arg Asp Pro Lys Gly Phe Pro Leu Ala Asp Ala Arg Arg  
 165 170 175  
 Val Ala Gly Leu Thr Gly Val Tyr Gln Val Pro Ala Gly Ala Val Met

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Asp Ile Asp Leu Gly Ser Gly Thr Ala Val Thr His Arg Thr Trp Thr		
195	200	205
Pro Gly Leu Ser Arg Arg Ile Leu Pro Glu Gly Glu Ala Val Ala Ala		
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Val Arg Ala Ala Leu Glu Lys Ala Val Ala Gln Arg Val Thr Pro Gly		
225	230	235
Asp Thr Pro Leu Val Val Leu Ser Gly Gly Ile Asp Ser Ser Gly Val		
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Ala Ala Cys Ala His Arg Ala Ala Gly Glu Leu Asp Thr Val Ser Met		
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Gly Thr Asp Thr Ser Asn Glu Phe Arg Glu Ala Arg Ala Val Val Asp		
275	280	285
His Leu Arg Thr Arg His Arg Glu Ile Thr Ile Pro Thr Thr Glu Leu		
290	295	300
Leu Ala Gln Leu Pro Tyr Ala Val Trp Ala Ser Glu Ser Val Asp Pro		
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Asp Ile Ile Glu Tyr Leu Leu Pro Leu Thr Ala Leu Tyr Arg Ala Leu		
325	330	335
Asp Gly Pro Glu Arg Arg Ile Leu Thr Gly Tyr Gly Ala Asp Ile Pro		
340	345	350
Leu Gly Gly Met His Arg Glu Asp Arg Leu Pro Ala Leu Asp Thr Val		
355	360	365
Leu Ala His Asp Met Ala Thr Phe Asp Gly Leu Asn Glu Met Ser Pro		
370	375	380
Val Leu Ser Thr Leu Ala Gly His Trp Thr Thr His Pro Tyr Trp Asp		
385	390	395
Arg Glu Val Leu Asp Leu Leu Val Ser Leu Glu Ala Gly Leu Lys Arg		
405	410	415
Arg His Gly Arg Asp Lys Trp Val Leu Arg Ala Ala Met Ala Asp Ala		
420	425	430
Leu Pro Ala Glu Thr Val Asn Arg Pro Lys Leu Gly Val His Glu Gly		
435	440	445
Ser Gly Thr Thr Ser Ser Phe Ser Arg Leu Leu Leu Asp His Gly Val		
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Ala Glu Asp Arg Val His Glu Ala Lys Arg Gln Val Val Arg Glu Leu		
465	470	475
Phe Asp Leu Thr Val Gly Gly Gly Arg His Pro Ser Glu Val Asp Thr		
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5

10

15

end B.

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